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PATENT  
Attorney Docket No. 1222.0034

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reissue Application of: )  
David A. Russo et al. )  
Serial No.: 08/544,212 ) Group Art Unit: 1108  
(Original Patent 5,401,305 issued )  
March 28, 1995, Original Serial ) Examiner: D. Brunsman  
No. 104,125 filed December 13, 1993 )  
Filed: October 17, 1995 )  
For: COATING COMPOSITION FOR GLASS )  
Owner of Record: Elf Atochem North )  
America, Inc. )

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

**SUBSTITUTE REISSUE DECLARATION UNDER 37 C.F.R. § 1.175**

We, David A. Russo, Ryan R. Dirkx, and Glenn P. Florczak, the named inventors of the above-identified patent, declare and state as follows:

1. We are the named inventors of U.S. Patent No. 5,401,305 issued March 28, 1995, ("the '305 patent") which relates to a gaseous composition. We originally filed great grandparent, grandparent, PCT and parent patent applications to cover the invention in the '305 patent. Specifically, we filed U.S. Patent Application Serial No. 07/814,366 on December 26, 1991 (the "great grandparent application")

and Serial No. 07/814,352 on December 27, 1991 (the "grandparent application"). In order to obtain the benefit of these applications in filing abroad, we filed a PCT application within one year, claiming priority of the great grandparent and grandparent applications, and added additional disclosure. We refer to this as the "PCT application", Application No. PCT/US92/01873 filed December 21, 1992 designating the United States for filing the application as a continuation-in-part. The PCT application formed the basis for U.S. Application Serial No. 08/104,125 filed December 13, 1993 (the "parent application") which eventually issued as the '305 patent.

2. The claims of the '305 patent relate to a gaseous composition adapted to deposit at least a first layer of tin oxide and silicon oxide onto glass at a rate of deposition greater than about 350 Å/second. However, the specification of the '305 patent, as well as the specification of the application leading to the '305 patent, discloses a broader gaseous composition. As reflected in the claims attached as Exhibit 1 to this declaration (i.e. the claims attached to our original Reissue Declaration, as amended on October 18, 1995 and November 27, 1996), we believe we are entitled to a broader invention which relates to a gaseous mixture comprising at least one metal oxide precursor and an accelerator, a film comprising at least one metal oxide and an accelerator, and a layer comprising a mixture of at least one metal oxide and an accelerator deposited on a substrate. The subject matter of these claims was not truly pursued in the prosecution of the application leading to the '305 patent and we believe this was based on a misunderstanding or error of the patent counsel for the assignee.

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3. We erroneously understood at the time of filing the parent application (December 13, 1993) that the claims set out the invention that entitled us to patent protection, even though we made a more inclusive invention that encompassed not only additional compositions, but also a process, product, and article of manufacture as set out not only in the parent application but also the great grandparent and grandparent applications. The great grandparent application in this regard claimed in claim 1, a composition for coating a substrate that comprised at least one metal-oxide precursor and one deposition-rate-enhancing material. Claims 2-4 claimed a transparent substrate such as glass, whereas claim 5 included a silicon oxide precursor in the composition, and claims 6 and 7 described the metal-oxide precursor as a tin oxide precursor. Claims 8-19 described the various deposition-rate-enhancing substances, and claims 20-50 described the various articles of manufacture produced with the claimed composition including the composition applied as at least one layer or a plurality of layers.

4. The grandparent application in claim 1, claimed a method for depositing a film onto a substrate with at least deposition-rate-enhancing substance. Claims 2-5 described the substrate as brittle, transparent and specifically a glass whereas claim 6 described the layer as comprising metal and silicon oxides. Claims 7-10 described the method in terms of metals comprising tin and non-metals such as silicon, boron, and phosphorous or the oxides thereof, whereas claims 11-13 described the method in terms of depositing one or more layers of the composition. Claims 14-21 defined the deposition-rate-enhancing substances, whereas claims 22-27 described the method as

applied to forming a plurality of layers having a separate refractive index and the various materials employed in forming the layers. Claims 28-51 claimed various articles of manufacture employing the method.

5. The written description of the great grandparent and grandparent application also described all of the foregoing claimed subject matter.

6. At the time of filing the PCT application which forms the basis for the parent application, the PCT claims employed a format for submission to 23 of the designated PCT states in addition to the United States. Although the PCT application contained claims to a "composition" they included both process, product, and article of manufacture limitations. Claim 1 of the PCT application claimed a composition, but claim 2 contained temperature limitations for the application of the composition on to a flat glass substrate, whereas claim 4 described the glass substrate as moving and the application of the composition in a continuous manner. Claim 5 contained further temperature limitations for the application of the coating and claim 16 described a rate of deposition. Claims 25 and 26 also contained process limitations for the deposition of the composition, as at least a first layer, at specific temperature and pressure conditions as well as deposition rates. Claim 26 contained additional temperature limitations and also described applying the composition to a substrate by means of a continuous process.

7. The PCT claims also described the composition in terms of article of manufacture limitations. Claim 3, described the application of the composition to produce a glass article having no reflected color in daylight. Claims 17-23

contained product limitations in that they further describe the composition *inter alia* as adapted to provide an amorphous first layer (claim 17), a plurality of layers (claims 18, 19, 22, and 23), and further gave the composition of one of the layers (claims 19 and 20), and the refractive index of one of the layers (claim 21).

8. We do not in any way intend to limit the claims of any of the foregoing applications by the summaries of claims of those application as set forth herein.

9. An amendment in the parent application structured the PCT claims to conform to United States composition of matter claim practice. As a result of error, without deceptive intention, these claims were not amended to specifically include process, product and article of manufacture claims when the PCT application entered the national phase in the United States as the parent application. The more inclusive invention as set out in the written description of the parent application as well as the specifications of the great grandparent and grandparent applications was erroneously excluded without deceptive intent from coverage in the claims of the parent application but which the reissue application claims now cover.

10. We acknowledge our duty to disclose to the U.S. Patent and Trademark Office all information known to us which may be material to the patentability of the '305 patent and the new claims attached as Exhibit 1 to this Declaration.

11. We have reviewed and understand the contents of the original and reissue specifications, including the claims, as amended by any amendment, including the amendment attached to our original reissue Declaration and the amendment of November 27, 1996.

12. We believe we are the inventors to the original '305 patent, as well as the claims set forth in the amendment attached to our original reissue Declaration for which a reissue patent is sought, and our amendment of November 27, 1996.

13. The newly presented claims differ from those of the original patent in that the claims of the '305 patent only relate to a gaseous composition comprising a precursor of tin oxide, a precursor of silicon oxide of formula  $R_mO_nSi_p$  and an accelerant selected from the group consisting of organic phosphites, organic borates, and water, and mixtures thereof, and a source of oxygen. The original patent claims do not specifically mention a mixture comprising *inter alia* at least one metal oxide and an accelerant, a coated layer comprising the mixture containing the at least one metal oxide and an accelerant, nor do they relate to a gaseous composition comprising at least one precursor of a metal oxide with an accelerant and a precursor of silicon oxide, as was specifically disclosed in the specification of the '305 patent, for instance, at column 4, lines 18-39, column 5, lines 20-45, column 5, lines 58-66, as well as the examples.

14. We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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